

C L A I M S

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1. A pressure waveform setting method for injection pressure control, comprising a step of adjusting molding conditions, a step of detecting a pressure acting on a resin during an injection/dwell stage when a conforming molded article is obtained as an injection pressure waveform based on a function of time and a step of setting said detected injection pressure waveform as a target injection pressure waveform for pressure feedback control in the injection/dwell stage.

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2. A pressure waveform setting method for injection pressure control according to claim 1, wherein trial injection is executed with an injection pressure switching screw position and an injection speed set as molding conditions for the injection/dwell stage in an injection speed control section, and with a dwell pressure and a dwell time, along with other molding conditions, set in a dwell section; the trial injection is executed on the condition that said molding conditions be modified when necessary until the conforming molded article can be obtained; and said injection pressure waveform is set as the target injection pressure waveform when the conforming molded article is obtained.

3. A pressure waveform setting method according to claim 1, wherein trial injection is executed with an injection pressure switching screw position and an injection speed set as molding conditions for the injection/dwell stage in an injection speed control section, and with a dwell pressure and a dwell time, along with other molding conditions, set in a dwell

section; the pressure acting on the resin during the injection/dwell stage is detected as the injection pressure waveform based on the function of time; said detected injection pressure waveform is set as the target injection pressure waveform for pressure feedback control in the injection/dwell stage; trial injection based on the pressure feedback control is executed, and said molding conditions and said target injection pressure waveform are modified until the conforming molded article can be obtained.

4. A pressure waveform setting method for injection pressure control, comprising a step of previously storing for each mold a set injection pressure waveform observed when a molded article is obtained, or an injection pressure waveform obtained by detecting a pressure acting on a resin during an injection/dwell stage as a function of time; a step of invoking and displaying on a display device the injection pressure waveform of a new mold which has already been stored when a new mold to be used for molding is similar to such a mold; a step of assigning two points in the displayed injection pressure waveform; a step of changing the injection pressure waveform between said two points into a straight line connecting said two points to draw a straight line; a step of assigning two points in the injection pressure waveform as a starting point and an end point individually; a step of assigning one point between said two point to change the injection pressure waveform between said starting and end points into a curve connecting the three points in a circular arc thereby drawing a curve, and a step of reading and

setting, as the set injection pressure waveform, an injection pressure for each predetermined time interval from the modified injection pressure waveform.

5        5. An injection molding machine for changing pressure waveform, which is controlled by a processor for detecting a pressure acting on a resin during an injection stage and provides feedback control of said detected pressure so that the detected pressure agrees with injection pressure waveforms stored as functions of time in set injection pressure storage means, comprising:

10                a storage means for storing and retaining said injection pressure waveforms,

15                a display control means for causing an injection pressure waveform, selected among the injection pressure waveforms stored in said storage means, to be displayed on a screen of a display device,

20                an injection pressure waveform changing means for assigning two points in the injection pressure waveform displayed on said display means, changing the injection pressure waveform between said two points into a straight line connecting said two points to draw a straight line, assigning two points in the injection pressure waveform as a starting point and an end point individually, assigning one point between said two point, changing the injection pressure waveform between said starting and end points into a curve connecting the three points in a circular arc to draw a curve, and

25                an injection pressure waveform setting means for  
30        reading an injection pressure for each predetermined time interval from the injection pressure waveform drawn on the screen of the display device and storing

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said set injection pressure waveform storage means with the read injection pressure as set injection pressure waveform data.

5 6. An injection molding machine capable of  
changing pressure waveform, which is controlled by  
means of a processor for detecting a pressure acting on  
a resin during an injection stage and provides feedback  
control of said detected pressure so that the detected  
pressure agrees with injection pressure waveforms  
10 stored as functions of time in set injection pressure  
storage means, comprising:

a storage means for storing the pressure on the  
resin detected for each predetermined time interval  
during the injection stage,

15 a display control means for causing an actual  
injection pressure waveform stored in said storage  
means to be displayed on a screen of a display device  
in response to an injection pressure waveform  
modification command,

20 an injection pressure waveform changing means for  
assigning two points in the injection pressure waveform  
displayed on said display means, changing the injection  
pressure waveform between said two points into a  
straight line connecting said two points to draw a  
25 straight line, assigning two points in the injection  
pressure waveform as a starting point and an end point  
individually, assigning one point between said two  
point, changing the injection pressure waveform between  
said starting and end points into a curve connecting  
30 the three points in a circular arc to draw a curve, and

an injection pressure waveform setting means for  
reading an injection pressure for each predetermined

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time interval from the injection pressure waveform drawn on the screen of the display device and storing said set injection pressure waveform storage means with the read injection pressure as set injection pressure waveform data.

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